

COMPACT GRINDING MACHINE FOR HIGH PRODUCTION

CG



Compact grinding machine for high production

CG

With CG's core technology and the process know-how of our experts you will get finished parts in less time, thanks in part to:

- The ability to use conventional grinding wheels at 15,750 sfpm without affecting the quality of the workpiece
- The use of Ø24 in. grinding wheels

With a long life cycle, you will enjoy decades of optimum performance from this machine.

In addition, it incorporates heavy duty precision assemblies that deliver extraordinary stiffness, making it the ideal choice for the most demanding 24/7 production environments.

Discover the smart machine and benefit from connectivity.

In short, the CG delivers more for your money—and more per square foot than other cylindrical grinders.

Benefits:

- Danobat Core technology
- 22% higher productivity
- Shortest changeover times
- Full customization

Innovative solutions

Grinding machine range

See this machine in action:



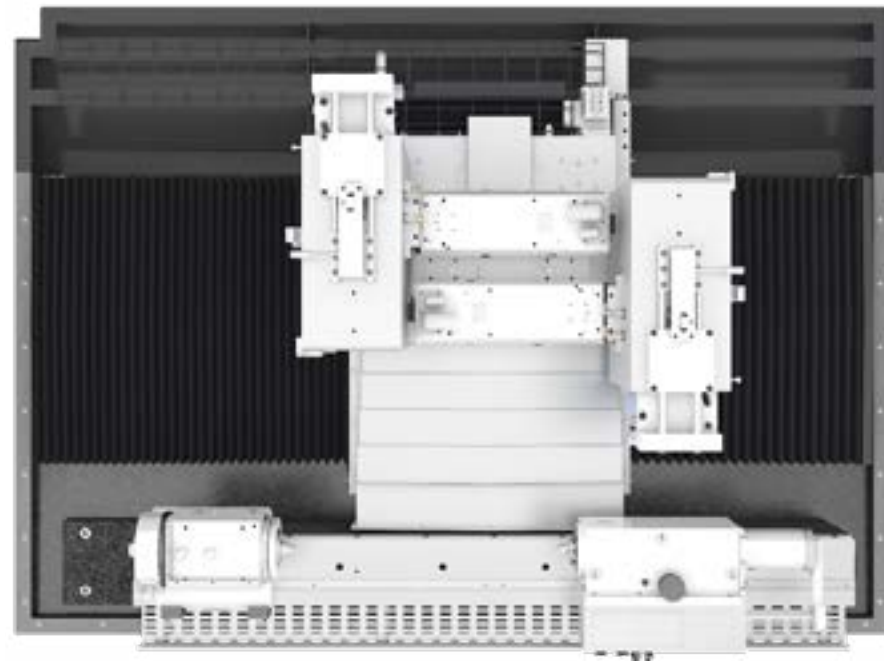
CG

Compact grinding machine

A high-production grinding machine, the best cost/part ratio

The CG grinding machine has been designed to meet the most challenging production requirements. It is characterized by the flexibility that allows it to be customized and adapted to each customer's needs.

Among other options, it can be equipped with grinding wheels of up to 24 in. in diameter, a wide variety of automated loading systems, and in/post-process measuring solutions.



Cross-slide architecture to reduce the machine footprint

TECHNICAL CHARACTERISTICS	CG-600	CG-1000	CG-1800
Max. distance between centers	23.62 in	39.37 in	70.9 in
Max. diameter to be ground	17 in	17 in	21 in
Max. weight between centers	1,100 lb	1,100 lb	1,100 lb
Max. external grinding wheel size	Ø 24 x 6.29 in	Ø 24 x 6.29 in	Ø 24 x 6.29 in
Max. wheel peripheral speed	15,750 sfpm	15,750 sfpm	15,750 sfpm
External grinding spindle	33.52 hp	33.52 hp	33.52 hp

↔ 70.9"

📏 1,100 lb

⌀ 21"



Innovative solutions

Core technology

When we talk about high production, every detail matters

Built-in spindles

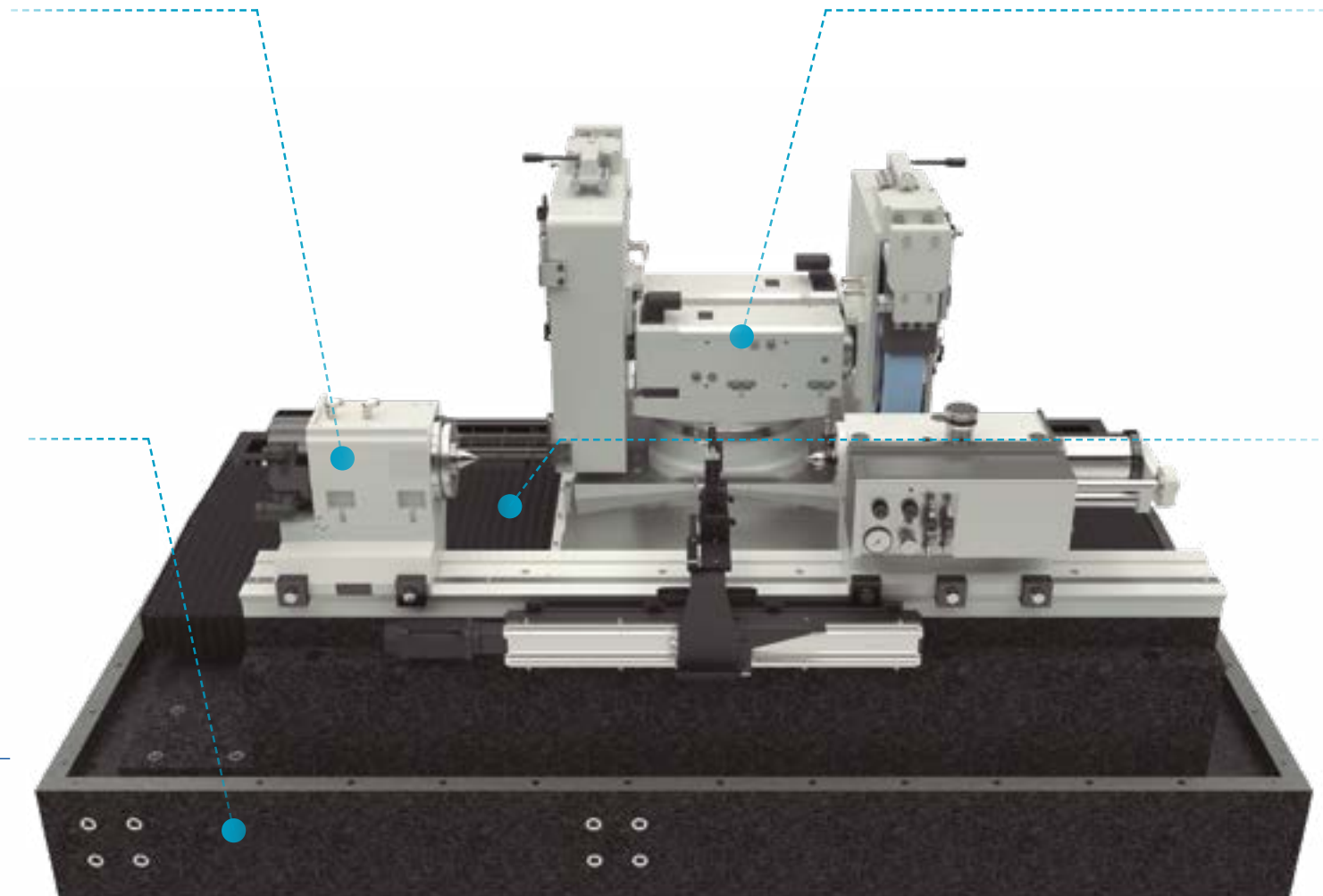
- Direct drive workhead spindle, grinding wheel spindles and dressing tool spindles
- High precision bearings with lifetime grease lubrication
- Suitable for high rotational speed requirements
- Modular, adaptable to specific customer applications
- Temperature control via an efficient cooling system

Natural granite bed

Natural granite is one of the keys for achieving the highest accuracy and the best surface quality:

- Chatter-free: 5 times better damping compared to traditional materials
- 80 times less affected by temperature changes
- Coolant through the bed and grinding area
- Environmentally friendly

Main advantages	Natural granite	Synthetic granite
Thermal stability		
Dynamic stability		
Vibration absorption		



Swiveling B-axis

- Infinitely programmable, high resolution swiveling B-axis
- Torque motor driven for zero backlash
- High resolution rotary encoder to control perfect angular positioning
- Thanks to Danobat's B-axis design with integrated, high resolution rotary encoder, the angular position is repeatable within ± 0.00004 in. measured at a radius of 25.6 in. from the center of the B-axis

Linear motors

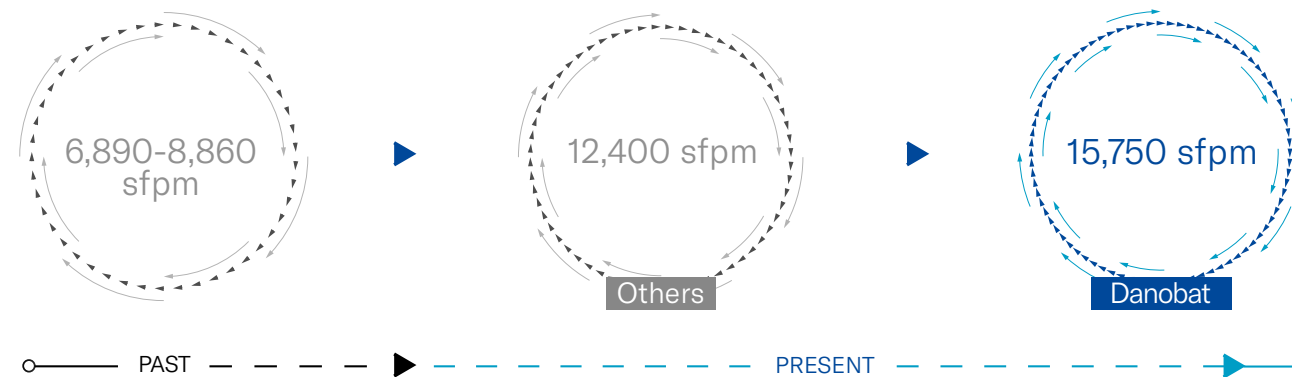
- No wear parts
- Shorter assembly and maintenance times
- Fastest axis acceleration
- High repeatability over time
- Optimized glass scale positioning

Main advantages	Linear motors	Ball screw
Precision		
Dynamic		
Maintenance free		
Repeatability		

Core technology

GO FAST! 15,750 sfpm with conventional abrasive

- Higher removal rates = Higher productivity
- Better surface quality
- Lower wheel wear = Higher tool life
- Take advantage of Danobat's thorough knowledge of the high speed grinding process



SOLUTION	Wheel speed	Grinding time	Total time	Dressing frequency (parts)	G ratio (wheel wear)	Tool life (parts)
Past	11,810 sfpm	1715 s	30 s	25	23	139,000
Present	15,750 sfpm	11.8 s	24.2 s	52	48	290,000
Comparison		-31 %	-19 %			109 %

From technology to results

After several years of research and development in the area of advanced high value added solutions, sharing knowledge and experience with customers and providers, we have achieved a substantial improvement in grinding processes.

To do this, we have a network of TechCenters — collaboration spaces where you can see, touch, and test out for yourself the solutions that best meet your requirements.



↓
IMPACT ON RESULTS

Up to 20% increase

For a given time frame

Longer wheel life

Innovative solutions

Software

DoGrind+: An intuitive easy-to-use software

Grinding program

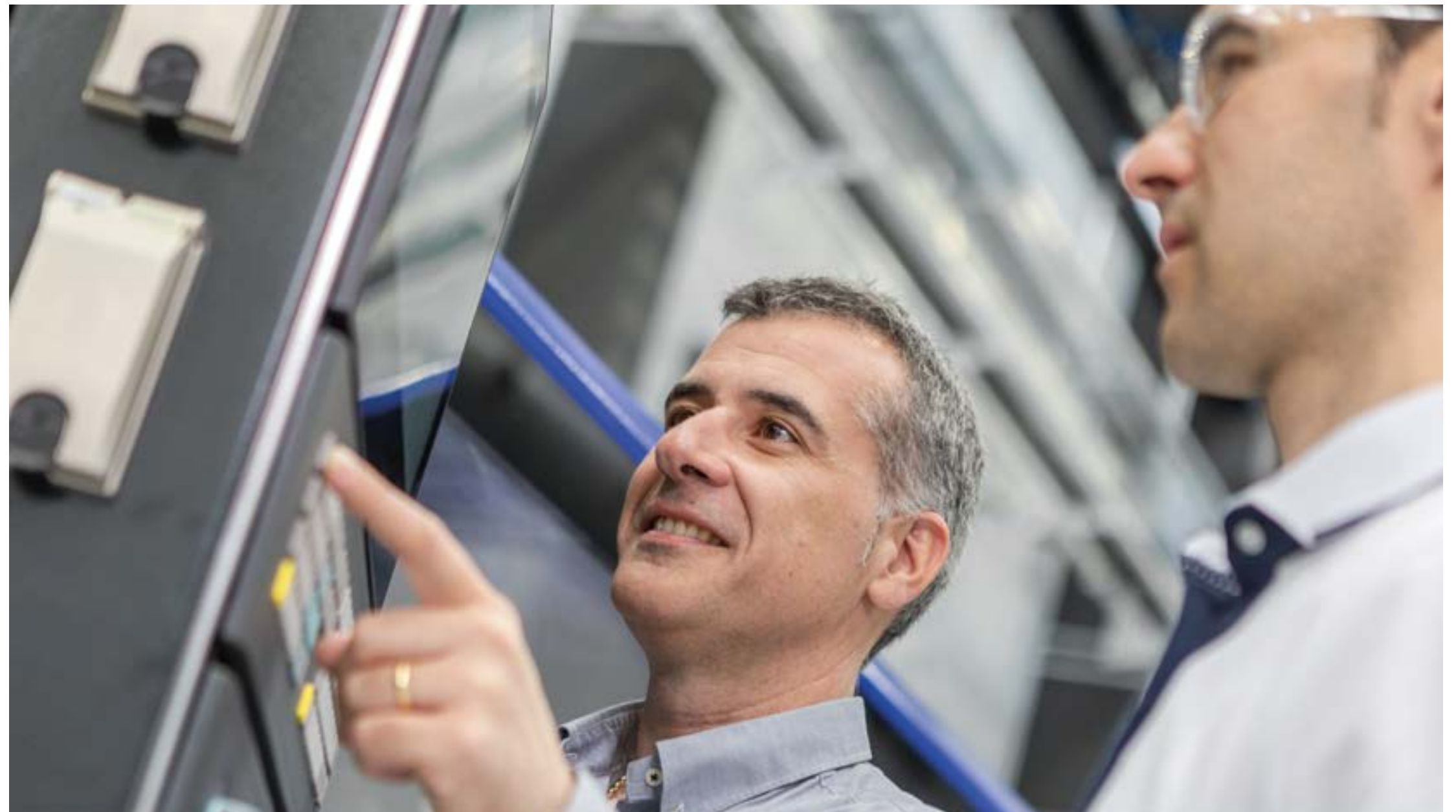
- With the simple input of the part dimensions and the material, it generates the grinding program for you
- Easily edit complex tool and part geometries

Changeovers

Optimized solutions for the fastest changeover, including automatic grinding wheel setup

Monitoring

- Total control in a single dashboard view
- Integration with ERP or external databases
- Measurement viewer app for results analysis and part traceability



Innovative solutions

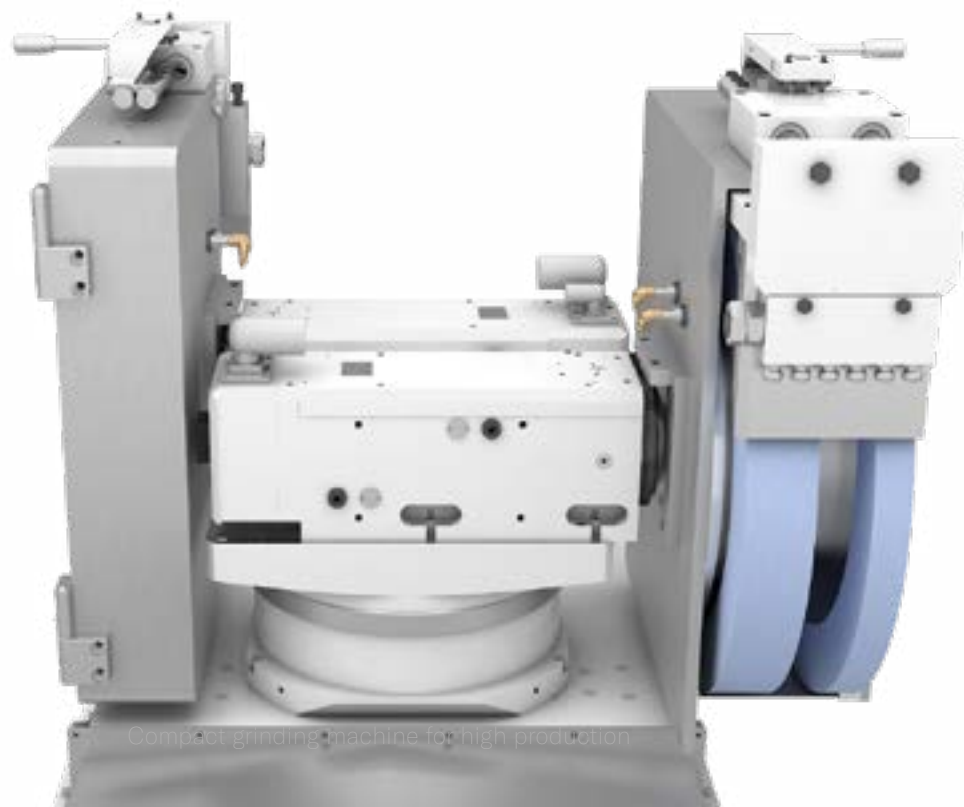
Customization

Customizable wheelhead

We can tailor our product to your requirements, developing and designing the optimal solution based on your specific needs.

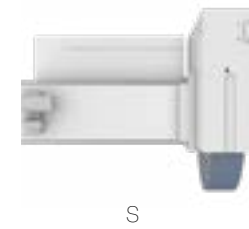
We can include:

- Touch probes
- Superfinishing
- Laser gauges
- Deburring system
- And much more

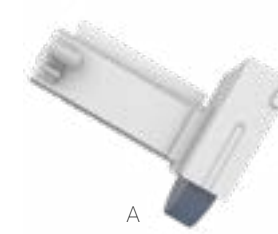


Wheelheads

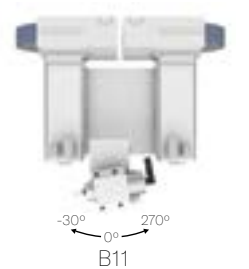
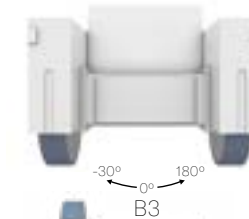
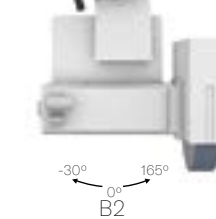
Straight



Angular



Swiveling B-axis



Customization

More info:



Moving tailstock

To allow quick workpiece change over, the CG model can be equipped with an automatic, programmable tailstock axis. The tailstock can be accurately and automatically positioned to accommodate different part lengths with no need for taper adjustments. Depending on the size of the machine model, tailstock axes with strokes of up to 15.75 in. are available. Customized solutions possible upon request.



CNC steady rest

For long, slim components, a number of steady rest options are available.



Synchronized tailstock

Shaft-type parts requiring complete OD grinding in one setup can be driven by the friction force of centers using motorized and synchronized tailstock spindle instead of hydraulic tailstocks. The synchronized tailstock spindle is dimensioned for strokes of up to 5.9 in.. Other strokes available upon request.

In addition and for chucking applications, the synchronized tailstock can be used as a sub-spindle for grinding of parts complete, without rotating the part.



Additional axis

An additional, programmable CNC W-axis can be integrated onto the CG machine's platform and control. This additional axis, running parallel to the workpiece axis, provides an ideal mounting base for additional features and functionalities, such as steady rests, in-process measuring units etc., to be incorporated into the grinding process, opening the world to many new possibilities and capabilities.



Integration of measuring system

The CG's high level of customizability also extends to its measuring systems, which can be mounted on the machine table, wheelhead, or even the machine bed.

We can install standard or wide range systems, fixed or in a mobile support, touch probe, match-grinding measuring devices and even non-contact laser measuring equipment.



Automatic taper adjustment

The automatic taper correction system ensures the best results when you need to satisfy critical cylindricity specifications, or in multiple diameter single-plunge grinding.

Automation

To ensure shorter changeover times and thus increase productivity, we offer different types of integrated loading and unloading systems for CG machines.

All were developed on a modular basis at Danobat and are compact, efficient and low-cost.

Robot



S Flexmotion
Robot inside the machine



M Flexmotion
Robot integrated in a cell coupled to the machine



L Flexmotion
Robot outside the machine



Gantry



M Motion
Gantry integrated in the machine



L Motion
Gantry outside the machine



Hybrid



M Hybrid
Combination of an integrated gantry and an external robot cell



L Hybrid
Combination of an external gantry and an external robot cell



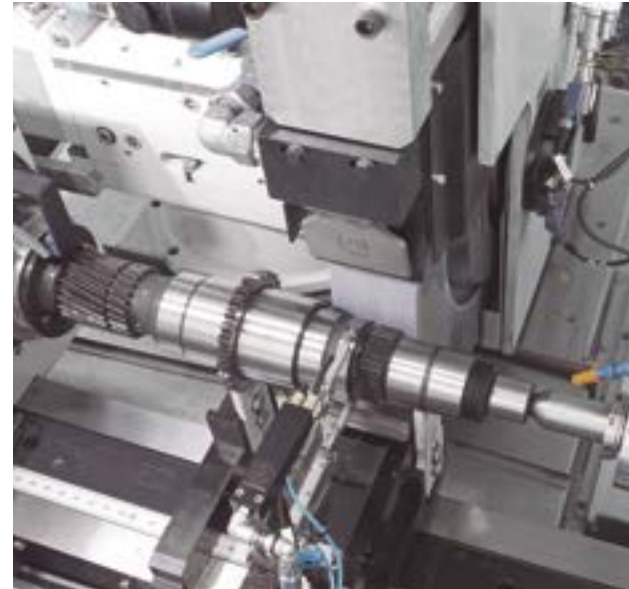
Innovative solutions

Applications

Automotive & E-mobility



Transmissions



Healthcare



Bearings



Capital goods



Cutting tools



Energy





www.danobat.com

USA & CANADA

Danobat

4080 Winnetka Ave.
Rolling Meadows - Illinois 60008
T + 1 847 250 6168
danobatinc@danobat.com

SPAIN

Danobat

Arriaga kalea, 21
E-20870 Elgoibar
Gipuzkoa
T + 34 943 748 044
danobat@danobat.com

GERMANY

Overbeck

Konrad-Adenauer-Str. 27
35745 Herborn
T + 49 (0) 2772 801 0
danobatoverbeck@danobat.com

THE NETHERLANDS

Hembrug

H. Figeeweg 1a+b
2031 BJ Haarlem
T + 31 23 5124900
sales@hembrug.com

UNITED KINGDOM

Danobat

1 Sturrock Way · Bretton
Peterborough
Cambs · PE3 8YF
T + 44 (0) 1733 265566
danobatltd@danobat.com

CHINA

Danobatgroup

Floors 1-2, No. 14, Lane 1155
Changbang Road, Songjiang District
201619 Shanghai
T + 86 21 6111 8696
info-china@danobatgroup.com

ITALY

Danobat

Regione Cartesio, 58
15012 Bistagno (AL)
T + 39 0144 441615
danobatsrl@danobat.com

BRAZIL

Danobat

Centro Empresarial Perdizes
Rúa Turiassu, 591 / SI-42
05005-001 São Paulo
T +55 113 082 90 80
danobatlda@danobat.com

MEXICO

Danobat

Carretera Estatal 431 Km. 2+200 Lote 45 Parque
Tecnológico Innovación, 76246 Querétaro, México
T +52 442 615 3541
danobat@danobat.com

INDIA

Danobatgroup

Office No-7 · Business Avenue · 2nd Floor
Niyoshi Park Road · Sanghvi Nagar · Aundh
411007 Pune, Maharashtra
T +91 20 2589 7648
danobatgroupindia@danobatgroup.com

DANOBATGROUP

